Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

1. (original) An all-fiber, all-states of polarization, linear design depolarizer for depolarizing a light source, which comprises:

a) a first polarization combiner with two inputs and two outputs;

b) a directional coupler connected to said first polarization combiner by two branches extending from the outputs of the first polarization combiner, one of the branches between the coupler and the first polarization combiner having means adapted to produce an optical phase delay greater than the coherence length of the light source, and each of the two branches having a polarization rotator means adapted to make the polarization in the two branches parallel and aligned with one eigen axis of the first polarization combiner; and

c) a second polarization combiner following the coupler and connected by two branches to said coupler, one of the branches between the coupler and the second polarization combiner having means adapted to produce an optical phase delay greater than the coherence length of the light source, and also having a polarization rotator means adapted to maintain a half wave length.

2. (original) An all-fiber, all-states of polarization, linear design depolarizer according to claim 1, in which the first polarization combiner is a Mach-Zehnder interferometer.

3. (currently amended) An all-fiber, all-states of polarization linear design depolarizer according to ~~claims 1 or 2~~ claim 1, in which the directional coupler is a 3dB 2x2 coupler.

4. (currently amended) An all-fiber, all-states of polarization linear design depolarizer according to ~~claims 1, 2 or 3~~ claim 1, in which the means adapted to produce an optical phase delay in one of the branches between the first polarization combiner and the coupler consists of a fiber loop.

5. (currently amended) An all-fiber, all-states of polarization linear design depolarizer according to ~~any one of claims 1 or 4~~ claim 1, in which the means adapted to produce an optical phase delay in one of the branches between the first polarization combiner and the coupler are such as to produce equal average power in the coupler outputs.

6. (currently amended) An all-fiber, all-states polarization linear design depolarizer according to ~~any one of claims 1 to 5~~ claim 1, in which the means adapted to produce an optical phase delay between the coupler and the second polarization combiner are such as to decorrelate the polarizations at the output of the second polarization combiner.

7. (currently amended) An all-fiber, all-states of polarization linear design depolarizer according to ~~any one of claims 1 to 6~~ claim 1, in which the polarization rotator means are such as to produce p/2 rotation.

8. (currently amended) An all fiber, all states polarization linear design depolarizer according to ~~any one of claims 1 to 7~~ claim 1, in which the rotator means between the coupler and the second polarization combiner is adjusted so as to maximize power at the output of the second polarization combiner.

9. (currently amended) An all fiber, all states polarization linear design depolarizer according to ~~any one of claims 1 to 6~~ claim 1, which is made of PM fibers and in which the

polarization rotator means consist of a 90° axial rotation of the PM fibers.

10. (original) Method of producing an all-fiber, all-states of polarization, linear design depolarizer, which comprises:

a) connecting a directional coupler and a polarization combiner by two branches, using power measurement with a given linear state of polarization at the input of the coupler;

b) providing in one of the branches between the coupler and the polarization combiner an optical phase delay greater than the coherence length of the light source to be depolarized and a polarization rotator means and adjusting said polarization rotator means so that maximal power is detected at the output of the polarization combiner; and

c) connecting by two branches another polarization combiner at the opposite side of the coupler and providing in one of the branches between said polarization combiner and the coupler an optical phase delay greater than the coherence length of the light source, and also providing a polarization rotator means in each branch to make the polarization in the two branches parallel and aligned with one eigen axis of the polarization combiner.

11. (original) Method according to claim 10, in which PM fibers are used for producing the all-fiber, all-states of polarization linear design depolarizer, in which case the rotator means consist of a 90° axial rotation of said PM fibers.

12. (original) Method according to claim 11, in which the 90° axial rotation is achieved by fusion splicing the PM fibers at a 90° angle.